Ms. Theresia L Rowland
Chemtrol Division of NIBCO
105 Quality Court
Charlestown, IN 47111

Re: Exempt Operation Status,
019-13664-00081

Dear Ms. Theresia Rowland,

The application from Chemtrol Division of NIBCO, received on December 27, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the manufacturing of PVC (poly vinyl chloride) and CPVC (chlorinated poly vinyl chloride) valves and fittings, to be located at 105 Quality Court, Charlestown, Indiana, is classified as exempt from air pollution permit requirements. The source has the following Permitted Emission Units:

(1) Two (2) silos, outdoor (system I) 12 feet diameter, 60 feet high, capacity of 5,745 cubic feet each, exhausting through the vent.
(2) One (1) silo vacuum loading system, capacity of 12,000 pounds per hour, controlled by a dust filter (Q-1-A) with a 25 HP driven vacuum pump conveying gas flow rate of 350 acfm at 90 ^{0}F.
(3) One (1) silo vacuum loading system, capacity of 2,000 pounds per hour, controlled by a dust filter (Q-1-B) with a gas flow rate of 200 acfm at 90 ^{0}F.
(4) Six (6) raw material pneumatic conveying systems controlled by a dust filter (Q-1-B) with a gas flow rate of 200 acfm at 90 ^{0}F.
(5) Two (2) mixer systems, capacity of 2,000 pounds per hour each, controlled by cyclones.
(6) Three (3) drying hoppers, capacity of 2,000 pounds per hour each, controlled by cyclones.
(7) One (1) rapid grinder - PVC, capacity of 1,500 pounds per hour, controlled by dust filter (Q-1-D) with a gas flow rate of 1,150 acfm at 90 ^{0}F.
(8) One (1) rapid grinder- CPVC, capacity of 1,500 pounds per hour, controlled by dust filter (Q-1-D) with a gas flow rate of 1,150 acfm at 90 ^{0}F.
(9) One (1) ABS grinder, capacity of 300 pounds per hour controlled by dust filter.
(10) One (1) solvent wash tank, capacity of 10 gallons. This tank is used for the general cleaning of greasy mechanical components.
(11) One (1) solvent wash tank, capacity of 80 gallons. This tank is used to clean the mold components after production run.
(12) Two (2) oil/ water separator exhausting through stack # 1.
(13) Two (2) injection molding machines, each with 1000 tons clamping capacity with loader..
(14) Five (5) injection molding machines, each with 500 tons clamping capacity with loader.
(15) One (1) injection molding machine, 400 tons clamping capacity with loader.
(16) Three (3) injection molding machines, each with 440 tons clamping capacity with loader.
(17) One (1) injection molding machine, 310 tons clamping capacity with loader.
(18) Twelve (12) injection molding machines, each with 300 tons clamping capacity with loader.
(19) Three (3) injection molding machines, each with 220 tons clamping capacity with loader.
(20) Two (2) injection molding machines, each with 200 tons clamping capacity with loader.
(21) Four (4) injection molding machines, each with 175 tons clamping capacity with loader.
(22) Five (5) injection molding machines, each with 165 tons clamping capacity with loader.
(23) One (1) plastic welding operation unit. Also welding operation used for maintenance.
(24) One (1) ink jet printing operation unit.
(25) Natural gas fired combustion equipments totally 9.65 MMBtu per hour described as follows:

One (1) heater, capacity of 3.125 MMBtu/hr venting through stack # 5.
One (1) heater, capacity of 1.125 MMBtu/hr. Venting through stack # 6.
One (1) pressure washer, capacity of 0.40 MMBtu/hr.
One (1) space heater, capacity of 1.25 MMBtu/hr.
One (1) space heater, capacity of 3.75 MMBtu/hr.

The following conditions shall be applicable:

(1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

(2) Pursuant to 326-IAC 8-3-2 (Organic Solvent Degreasing Operations- Cold Cleaner operation), the owner or operator of a cold cleaning facility shall:

1. Equip the cleaner with a cover;
2. Equip the cleaner with a facility for draining cleaned parts;
3. Close the degreaser cover whenever parts are not being handled in the cleaner;
4. Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
5. Provide a permanent, conspicuous level summarizing the operation requirements;
6. Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

(3) Pursuant to 326 IAC 8-3-5 (Organic solvent degreasing operations: cold cleaner degreaser operation and control)

(a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty eight degrees Celsius (38 ^{0}C) (One hundred degrees Fahrenheit (100 ^{0}F);
  (B) the solvent is agitated; or
  (C) the solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degree Celsius 38 ^{0}C) (one hundred degree Fahrenheit (100 ^{0}F)), then the draining facility must be internal such that articles are enclosed under the cover while draining. The draining facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38 ^{0}C) (one hundred degrees Fahrenheit (100 ^{0}F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degree Celsius (48.9 ^{0}C) (one hundred twenty degrees Fahrenheit (120 ^{0}F)):
  (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  (B) A water cover when solvent used is insoluble in, and heavier than, water.
  (C) Others systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.
(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
(3) Store waste solvent only in the covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

MZK

cc: File - Clark County
Clark County Health Department
Air Compliance - Joe Foyst
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for **Exemption**

Source Name: **Chemtrol Division of NIBCO, Inc.**
Source Location: **105 Quality Court, Charlestown, IN 47111**
County: **Clark**
SIC Code: **3089**
Operation Permit No.: **019-13664-00081**
Permit Reviewer: **Mohammad Z Khan**

The Office of Air Quality (OAQ) has reviewed an application from Chemtrol Division of NIBCO, Inc. relating to the operation of manufacturing PVC (polyvinyl chloride) and CPVC (chlorinated polyvinyl chloride) valves and fittings, having a capacity of 1650 pounds per hour.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(1) Two (2) silos, outdoor (system I) 12 feet diameter, 60 feet high, capacity of 5,745 cubic feet each, exhausting through the vent.
(2) One (1) silo vacuum loading system, capacity of 12,000 pounds per hour, controlled by a dust filter (Q-1-A) with a 25 HP driven vacuum pump conveying gas flow rate of 350 acfm at 90 ^{0}F.
(3) One (1) silo vacuum loading system, capacity of 2,000 pounds per hour, controlled by a dust filter (Q-1-B) with a gas flow rate of 200 acfm at 90 ^{0}F.
(4) Six (6) raw material pneumatic conveying systems controlled by a dust filter (Q-1-B) with a gas flow rate of 200 acfm at 90 ^{0}F.
(5) Two (2) mixer systems, capacity of 2,000 pounds per hour each, controlled by cyclones.
(6) Three (3) drying hoppers, capacity of 2,000 pounds per hour each, controlled by cyclones.
(7) One (1) rapid grinder - PVC, capacity of 1,500 pounds per hour, controlled by dust filter (Q-1-D) with a gas flow rate of 1,150 acfm at 90 ^{0}F.
(8) One (1) rapid grinder- CPVC, capacity of 1,500 pounds per hour, controlled by dust filter (Q-1-D) with a gas flow rate of 1,150 acfm at 90 ^{0}F.
(9) One (1) ABS grinder, capacity of 300 pounds per hour controlled by dust filter.
(10) One (1) solvent wash tank, capacity of 10 gallons. This tank is used for the general cleaning of greasy mechanical components.
(11) One (1) solvent wash tank, capacity of 80 gallons. This tank is used to clean the mold components after production run.
(12) Two (2) oil/ water separators exhausting through stack # 1.
(13) Two (2) injection molding machines, each with 1000 tons clamping capacity with loader..
(14) Five (5) injection molding machines, each with 500 tons clamping capacity with loader.
(15) One (1) injection molding machine, 400 tons clamping capacity with loader.
(16) Three (3) injection molding machines, each with 440 tons clamping capacity with loader.
(17) One (1) injection molding machine, 310 tons clamping capacity with loader.
(18) Twelve (12) injection molding machines, each with 300 tons clamping capacity with loader.

(19) Three (3) injection molding machines, each with 220 tons clamping capacity with loader.
(20) Two (2) injection molding machines, each with 200 tons clamping capacity with loader.
(21) Four (4) injection molding machines, each with 175 tons clamping capacity with loader.
(22) Five (5) injection molding machines, each with 165 tons clamping capacity with loader.
(23) One (1) plastic welding operation unit. Also welding operation used for maintenance.
(24) One (1) ink jet printing operation unit.
(25) Natural gas fired combustion equipments totally 9.65 MMBtu per hour described as follows:
One (1) heater, capacity of 3.125 MMBtu/hr venting through stack # 5.
One (1) heater, capacity of 1.125 MMBtu/hr. Venting through stack # 6.
One (1) pressure washer, capacity of 0.40 MMBtu/hr.
One (1) space heater, capacity of 1.25 MMBtu/hr.
One (1) space heater, capacity of 3.75 MMBtu/hr.

Existing Approvals

The source has been operating under previous registration 019-4989-00081, issued on February 13, 1996. The source submitted an application for the renewal of registration to OAQ on December 27, 2000.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
# 1	30	0.67	500	70

Recommendation

The staff recommends to the Commissioner that the exemption be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on December 27, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (4 pages).

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM/PM-10	4.55
SO_2	0.00
VOC	3.95
CO	3.60
NO_x	4.20

HAPs	PT E (tons/year)
Single HAP	0.88
Total	**0.88**

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3(d)(1).

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3.

County Attainment Status

This source is situated in Clark County.

Pollutant	Status **(attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)**
PM-10	Attainment
SO_2	Attainment
NO_x	Attainment
Ozone	Moderate
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for all formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as moderate nonattainment for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for emission offset, 326 IAC 2-3.

(a) Clark County has been classified as attainment or unclassifiable for PM-10, SO_2, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM/PM-10	0.01
SO_2	0.00
VOC	3.95
CO	3.60
NO_x	4.20

This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

(a) Subpart QQ (Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing), (40 CFR 60.430), applies to publication rotogravure printing presses. This operation has an ink jet printing press. Therefore, the rule does not apply.

(b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(c) There are two solvent wash tanks. The tanks use methyl ethyl ketone (MEK). MEK is not one of the listed solvents in subpart T. Therefore, 40 CFR 63.460, Sub Part T (National Emission Standards for Halogenated Solvent Cleaning) does not apply.

(d) The facility has a ink jet printing operation unit to print/stamp on manufactured valves and fittings. It is not a major source of hazardous air pollutants (HAP) and it is not a publication rotogravure, product and packaging rotogravure, or wide web flexographic printing press.. Therefore, 40 CFR 63.820, Sub Part KK (National Emission Standard for

(e) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Clark County and the potential to emit VOC is less than ten (10) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

This source is located in Charlestown Township.
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation for manufacture of PVC and CPVC valves and fittings will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the source after the filters are negligible. The particulate matter emissions rate from this source established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The filters shall be in operation at all times when the plant is in operation, in order to comply with this limit.

326 IAC 8-1-6 (General Provision Relating to VOC Rules)

Each facility has potential VOC emissions less than 22.7 megagrams (25 tons) per year. Therefore, this rule will not apply.

326 IAC 8-3-2 (Organic solvent degreasing operations: cold cleaner operation)

The applicant shall comply with the requirements of 326 IAC 8-3-2 (Organic solvent degreasing operations: cold cleaning operation).

326 IAC 8-3-5 (Organic solvent degreasing operations: cold cleaner degreaser operation and control)

The facility has no remote solvent reservoir. Therefore, the applicant shall comply with the operating requirements of 326 IAC 8-3-5(b)(Organic solvent degreasing operations: cold cleaner degreaser operation and control).

Conclusion

The operation of manufacturing PVC and CPVC valves and fittings shall be subject to the conditions of the attached proposed **Exemption 079-13664-00081.**

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR <100
Heaters

Company Name: Chemtrol Division of NIBCO, Inc.
Address City IN Zip: 105 Quality Court, Charlestown, IN 47111
CP: 019-13664
Plt ID: 019-00081
Reviewer: Mohammad Z Khan
Date: Feb 8, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
9.7	84.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.3	0.0	4.2	0.2	3.6

*PM emission factor is filterable PM only. PM10 emission factor is condensable and filterable PM10 combined.
**Emission Factors for NOx: Uncontrolled =100 MMBtu/hr, Low NOx Burner = 50, Flue gas recirculation = 32.
(See Table 1.4-1)

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
MMBTU/HR <100
Heaters
HAPs Emissions

Company Name: Chemtrol Divisionof NIBCO, Inc.
Address City IN Zip: 105 Quality Court, Charlestown, IN 47111
CP: 019-13664
Plt ID: 019-00081
Reviewer: Mohammad Z Khan
Date: Feb 8, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	8.88E-05	5.07E-05	3.17E-03	7.61E-02	1.44E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.11E-05	4.65E-05	5.92E-05	1.61E-05	8.88E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

gas100.wb3
updated 4/99

Appendix – A

Chemtrol Division of NIBCO, Inc.
105 Quality Court, Charlestown, IN 47111
019-13664-00081
Reviewer: Mohammad Z Khan
Date: Feb 12, 2001

(A) Natural Gas Fired Combustion Equipments:

	MMBtu/hr
One (1) heater venting through stack # 5	: 3.125
One (1) heater venting through stack # 6	: 1.125
One (1) Pressure Washer	: 0.400
One (1) Space Heater	: 1.250
One (1) Space Heater	: 3.750
Total	**: 9.65 MMBtu/hr**

(B) Potential Emissions from Surface Coating and Solvent Cleaning

	Potential Uses Gals/year	Density Lbs/gal	Weight % Volatile	**VOC Emissions Tons/year**
Solvent Wash Tank				
MEK	550	6.72	100%	**1.85**
Plastic Parts Welding Operation				
PVC Glue	400	8.18	90%	**1.47**
CPVC Glue	120	7.59	65%	**0.30**
Printing Operation				
Video Jet Ink Source	20	7.51	77%	**0.06**
Make-up Ink	20	6.68	100%	**0.07**

Calculations: (Potential uses * Density * Weight% volatile) / 2000 = tons/yr.

Chemtrol Division of NIBCO, Inc

105 Quality Court, Charlestown, IN 47111
019-13664-00081
Reviewer: Mohammad Z Khan

(A) PARTICULATE MATTER EMISSIONS (PM/PM-10):

Emission factors for PM/PM-10 for loading the plastic pellets and unloading into the mixer, and injection molding machines are taken from the engineering judgement.

1. Silo Vacuum loading system: 0.10 Lb/ton * Process wt. Rate = (0.1 0 Lb/ton) * (1560 / 2000 tons/hr) * (8760 hr/yr) / (2000 Lb/ton) = 0.34 tons/ year.
2. Loading Raw to Mixer system:0.10 Lb/ton* Process wt. Rate = (0.1 0 Lb/ton) * (1560 / 2000 tons/hr) * (8760 hr/yr) / (2000 Lb/ton) = 0.34 tons/ year.
3. Drying Hoppers to molders: 0.10 Lb/ton* Process wt. Rate = (0.1 0 Lb/ton) * (1692 / 2000 tons/hr) * (8760 hr/yr) / (2000 Lb/ton) = 0.37 tons/ year.
4. Injection molding machines (PVC and CPVC): 0.568 Lb/ton * Process Weight Rate = (0.568 0 Lb/ton) * (2490 / 2000 tons/hr) * (8760 hr/yr) / (2000 Lb/ton) = 3.10 tons/ year.

(B) FACILITY WIDE POTENTIAL TO EMIT (PTE), Tons/ Year (SUMMARY):

Identity	PM/PM-10 *	SO_2	Nox	VOC	CO
Silo Vacuum Loading System	0.34				
Mixer System	0.34				
Drying Hoppers to molders	0.37				
Injection molding machines	3.10				
Solvent Washing Tank				1.85	
Plastic Parts Welding Operation				1.77	
Printing Operation				0.13	
Heaters, Natural Gas Fired	0.40	0.00	4.20	0.20	3.60
TOTAL	**4.55**	**0.00**	**4.20**	**3.95**	**3.60**

* Efficiency of PM/PM-10 control equipments are 99.9% as per manufacturer. After control 0.01 tons/yr.

(C) HAPs EMISSION (Air Toxic Pollutants):

Pollutant	Stack/ vent	Rate Lb/hr	TONS/HR (8760 hr/yr)
Methyl Ethyl Ketone	# 1	0.18	0.79
Vinyl Chloride	Fugitive	0.02	0.09
Total		**0.20**	**0.88**